Characterizing knowledge utilization during software design process using PKAMI model

ABSTRACT

Abundant of studies and intellectual efforts have been invested particularly in determining the influencing and inhibiting factors towards effective knowledge transfer. The intriguing aspects of knowledge transfer have enabled it to be studied and examined from diverse angles and multi perspectives. Many however, tend to overlook the essence of effective knowledge transfer that is, the utilization of knowledge being transferred. For knowledge-intensive environment such as software development project, knowledge integration which encompasses activities of transferring various knowledge across different software processes often takes place. Best case scenario would be a generous opportunity to learn from each other, creating new knowledge and ultimately delivering quality software. But many failed to reap its advantage resultant from its impulsive nature and lack of methods to verify use of knowledge when the transfer happens. Alarmed by this situation, we proposed PKAMI, a model for characterizing knowledge utilization thus enables the verification of effective knowledge transfer. In our previous study we focused into software architecture development. In this paper, we attempt to investigate knowledge transfer a step further, which is in the process of designing the software to be developed for a project, carried out by our students and supervised by our industrial partners. Our aim is to determine the occurrence of effective knowledge transfer by characterizing the knowledge use during software design process. We believe that our effort put forth in this research would be an extremely significant contribution to software engineering as well as knowledge management research.

Keyword: PKAMI model; Software design process; Knowledge utilization; Knowledge characterization; Knowledge transfer